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What is claimed is:

analyzing to the models.

1	1. A method for adaptation of a computer system, network or
2	subsystem comprising developing a design for the system and
3	performing an automated loop comprising implementing the design;
4	analyzing operation of the design after said implementing; and
5	modifying the design based on results of said analyzing.
1	2. The method according to claim 1, further comprising forming
2	models of components of the system and applying results of said

- 3. The method according to claim 2, wherein said applying results of said analyzing to the models indicates utilization of a component of the system.
- 4. The method according to claim 3, wherein said modifying the design is performed in response to the utilization.
- 5. The method according to claim 4, wherein said modifying is also performed in response to a desired headroom level.
- 1 6. The method according to claim 5, wherein said desired headroom level provides that components of the system operate at less than 100% utilization.
- 7. The method according to claim 7, wherein said desired headroom level provides that components of the system operate at more than 100% utilization.

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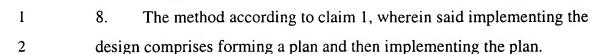
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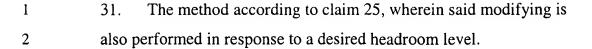
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- 9. The method according to claim 1, wherein said system comprises a CPU farm.
- 1 10. The method according to claim 1, wherein said system comprises 2 a data caching system.
- 1 11. The method according to claim 1, wherein said system comprises a database system.
- 1 12. The method according to claim 11, wherein said modifying comprises modifying indices of the database system.
 - 13. A method for adaptation of a data storage system, comprising developing a design for the data storage system and performing an automated loop comprising implementing the design; analyzing operation of the design after said implementing; and modifying the design based on results of said analyzing.
 - 14. The method according to claim 13, further comprising forming models of components of the data storage system and applying results of said analyzing to the models.
- 1 15. The method according to claim 14, wherein said applying results of said analyzing to the models indicates utilization of a component of the data storage system.
- 1 16. The method according to claim 15, wherein said modifying the design is performed in response to the utilization.

1	17. The method according to claim 16, wherein said modifying is
2	also performed in response to a desired headroom level.
1	18. The method according to claim 17, wherein said desired
2	headroom level provides that components of the data storage system
3	operate at less than 100% utilization.
1	19. The method according to claim 17, wherein said desired
2	headroom level provides that components of the data storage system
3	operate at more than 100% utilization.
1	20. The method according to claim 13, wherein said implementing
2	the design comprises forming a plan for migrating data and then
3	implementing the plan.
1	21. The method according to claim 20, wherein said forming a plan
2	comprises forming a directed multigraph and computing a maximum
3	general matching.
1	22. The method according to claim 13, wherein said analyzing
2	comprises forming a trace of storage system events and forming a
3	workload characterization based on the trace.
1	23. The method according to claim 22, wherein said workload
2	characterization comprises a number of parameter values that
3	summarize the trace.
1	24. The method according to claim 23, further comprising forming
2	models of components of the data storage system and applying said
3	workload characterization to the models.

1	25. A method for adaptation of a data storage system, comprising:
2	developing a design for the data storage system;
3	implementing the design;
4	forming a trace of storage system events;
5	forming workload characterization from the trace;
6	applying the workload characterization to models of components
7	of the data storage system, wherein said applying indicates utilization of
8	a component of the data storage system; and
9	modifying the design in response to the utilization indicated by
10	said analyzing.
1	26. The method according to claim 25, wherein said modifying
2	results in a modified design and further comprising implementing the
3	modified design.
1	27 The method according to aloin 26 wherein said we diffuing
1	27. The method according to claim 26, wherein said modifying
2	comprises forming a device tree data structure that is representative of
3	the storage system.
1	28. The method according to claim 27, wherein said modifying
2	comprises reassigning data stores to components of the data storage
3	system.
1	29. The method according to claim 28, wherein said implementing
2	the modified design comprises forming a plan for migrating data and
3	then implementing the plan.
1	30. The method according to claim 29, wherein said forming a plan
2	comprises forming a directed multigraph and computing a maximum
3	general matching.
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- 1 32. The method according to claim 31, wherein said desired 2 headroom level provides that components of the data storage system 3 operate at less than 100% utilization.
- 1 33. The method according to claim 31, wherein said desired 2 headroom level provides that components of the data storage system 3 operate at more than 100% utilization.